ER NCO COMMUNICATION 95-03

OFFICE OF ENERGY RESEARCH

NATIONAL ENVIRONMENTAL POLICY ACT PROGRAM SUMMARY FOR 1994 AND STATUS REPORT ON CONTINUOUS IMPROVEMENT IN ENERGY RESEARCH NEPA SERVICES AND PRODUCTS

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Abstract. This report is the third annual National Environmental Policy Act (NEPA) Program Summary for the Office of Energy Research (ER) NEPA Compliance Officer (ER/HQ NCO). It reviews and summarizes the ER NEPA program activities and accomplishments for calendar year 1994. This Summary provides a status and assessment of ER's progress in continuous improvement in its NEPA services and products during 1994, as well as a discussion of trends during the period 1990-1994. Examples of this progress are provided and discussed. Areas for further improvement, anticipated actions, and future program directions are discussed. The Program Summary is used as a means to provide information, express concerns, identify successes, and monitor the outcomes of ER's NEPA program. During 1994, ER's NEPA Program continued to focus on customer needs and on quality assurance and continuous improvement in the NEPA process in support of quality decisionmaking. It focused on the outcomes and results of the process in terms of environmental stewardship. The program continued to focus on improving environmental decisionmaking within ER and to reiterate that ER views the environmental impact assessment process as assisting the scientific mission of the Office and not impeding it.

Fifteen Findings of No Significant Impact for ER research proposals were issued in 1994 based on the preparation of 15 environmental assessments (EA). This continued the trend of the last five years in ER's use of EAs to support decisionmaking. This trend and ER's use of Federal Register notices in the EA process since 1990 are discussed. ER NEPA program communications are discussed, including the ER NCO Communications series, the Semiannual NEPA Workshops, the ER NEPA Compliance Page on the Internet World Wide Web, site visits by the ER/NCO to six National Laboratories, and news media publications of ER's NEPA results and successes. Continuous improvement in ER's NEPA services and products is summarized and assessed, including ER NEPA guidance issuances, the ER NCO Quality Awards Program and the award recipients for 1994. ER's activities related to delegated EA authority are summarized, including support for the Operations Offices, development and conduct of an ER EA Preparation Training Course, and a NEPA Workshop on delegated authority. Continuous improvement in ER's decisionmaking and environmental protection as a product of the NEPA process is discussed and examples are presented on metals recycling, waste minimization and dose reduction, and wetlands mitigation and protection.

I. INTRODUCTION AND PURPOSE OF THE PROGRAM SUMMARY

This report constitutes the third annual National Environmental

Policy Act (NEPA) Program Summary for the Office of Energy Research (ER) NEPA Compliance Officer (NCO). It reviews and summarizes the ER NEPA program activities and accomplishments for calendar year 1994. This Summary provides a status and assessment of ER's progress in continuous improvement in its NEPA services and products during 1994, as well as a discussion of trends during the period 1990-1994. Examples of this progress are provided and discussed. Areas for further improvement, anticipated actions, and future program directions are discussed. The Program Summary is used as a means to provide information, express concerns, identify successes, and monitor the outcomes of ER's NEPA program. Many reports, NEPA documents, guidance and procedures are discussed and cited through this Program Summary. Those that are not specifically cited in the text are included in the references in section VII.

On July 20, 1993 the Secretary of Energy issued the "Environment, Safety and Health Policy for the Department of Energy Complex." In the transmittal memo, the Secretary called for "...periodic updates that include specific examples of progress toward establishment of daily excellence in worker, public and environmental protection as a hallmark of our activities." This Program Summary provides information and examples of ER's progress toward establishing excellence in, and improving its NEPA products and services in support of the Department's scientific research mission.

Program Focus. On November 13, 1992, ER issued a "Statement of Goals and Objectives for Adherence to the principles of NEPA." That statement was aimed at improving environmental decisionmaking within ER and it reiterated that ER views the environmental impact assessment process as assisting the scientific mission of the Office and not impeding it. Those goals and objectives continued to be a central focus of the ER NEPA program in 1994. Also during 1994, ER/HQ began the development of the ER "Environment, Safety and Health (ES&H) Policy Statement" for the Office that was in draft form at the end of the year. The draft policy reiterated ER's proactive approach to ES&H that emphasized preventing and eliminating hazards and environmental impacts. This is consistent with both the goals of NEPA and the ER goals and objectives for adherence to the principles of NEPA.

During 1994, ER's NEPA Program also continued to focus on customer needs and on quality assurance and continuous improvement in the NEPA process in support of quality decisionmaking. It focused on the outcomes and results of the process in terms of environmental stewardship. The program responded to the need for assistance from ER's field elements to support their delegation of authority for the Environmental Assessment (EA) process. These priorities were accomplished utilizing some of the principles of Total Quality Management (TQM) such as improved communications, training and workshops, issuance of guidance and procedures, preparation of quality assurance plans, and the implementation of an awards recognition program.

A significant component of ER's efforts to promote continuous improvement and to support delegated EA authority was the development of an EA Preparation Training Course for the Operations Offices that administer ER sponsored research. This training course, delivered to two Operations Offices in 1994, began to show positive impacts on the overall quality of the documents produced.

Resources. The proactive nature of the ER NEPA program has been possible due to the active participation of staff from ER/HQ, the Operations Offices, Area and Site Offices, and National Laboratories. On occasion, staff from the DOE Office of Environment, Safety and Health (EH) and the Office of General Counsel (GC) have teamed with ER on specific tasks and actions. The teamwork and TQM approach has enabled experienced staff from around the ER complex to combine resources for the common good. This has enabled the ER/HQ NCO to be able to coordinate and facilitate these resources in positive ways that have been innovative and that have led to problem resolution. The ER Semiannual NEPA Workshops have been especially useful in this regard. The proactive nature of the program also has been enabled by the availability of support service contract help to assist the NCO with much of the technical work. During 1994, this was especially true with respect to NEPA document quality assurance reviews, new categorical exclusion development, EA lessons learned guidance, and with the development and conduct of the ER EA Preparation Training Course.

II. SUMMARY OF ER's NEPA SERVICES

A. ER's First NCO Retired. 1994 saw the retirement from federal service, on September 30, of ER's first NEPA Compliance Officer, James K. Farley. Mr. Farley was very supportive of the ER research programs and oversaw and championed the NEPA compliance work within ER from 1990 through 1994. He was especially concerned with and supportive of the issuance by HQ of expectations, guidance and procedures for ER and its field elements. Mr. Farley also championed the conduct of the Semiannual NEPA Workshops and encouraged the participation in them by DOE HQ and field staff, M&O contractor staff, and support contractors.

B. NEPA Documents Approved During 1994. ER continued to utilize the NEPA process to support project decisionmaking during 1994. The main documentation service to DOE's decisionmakers for ER's main proposed projects and research initiatives continued to be the EA, a vehicle designed to assess the presence or absence of significant impacts and to determine the need for Environmental Impact Statements (EIS). Fifteen Findings of No Significant Impact (FONSI) for ER proposed actions were issued in 1994 based on the preparation of 15 EAs (see Table 1 below). None of the EAs completed in 1994 resulted in the need to prepare an EIS or a mitigation action plan. Nine of the EAs and FONSIs were in support of ER administered congressionally-initiated construction grant projects. Five of the EAs and FONSIs were in support of decisions on new or modified ER research facilities at Brookhaven National Laboratory, Pacific Northwest Laboratory, and Princeton Plasma Physics Laboratory. One EA and FONSI was in support of a decision on the disposition of surplus copper at Lawrence Berkeley National Laboratory.

A Proposed FONSI for the combined proposed Tokamak Fusion Test Reactor Decontamination and Decommissioning Project and the Tokamak Physics Experiment at Princeton Plasma Physics Laboratory was published in the Federal Register on October 5, 1994 (59 FR 50738), for a 30-day comment period, and then published in final form in the Federal Register on December 14, 1994 (59 FR 64396). A Notice of Floodplain Involvement was published in the Federal Register on February 11, 1994 (59 FR 6627), for the proposed Gazes Cardiac Research Institute, for which an EA was being prepared. The Floodplain Statement of Findings was incorporated

into the FONSI for that project.

On June 13, 1994, the Secretary of Energy issued the "Secretarial Policy on the National Environmental Policy Act" which delegated the approval of the EA process and issuance of FONSIs from the DOE Office of Environment, Safety and Health (EH) to Secretarial Officers and Heads of Field Organizations. As a result, seven of the FONSIs for ER proposals in 1994 were issued by EH, with the remaining eight FONSIs issued by Richland Operations Office and Chicago Operations Office. The implementation of delegated authority is discussed further in Section IV. below.

At the close 1994, there were 8 EAs in preparation that were to be reviewed by the Operations Offices under the delegated approval authority for final determinations on the need for EISs. Two of the EAs were for congressionally-initiated construction grant projects administered by Chicago Operations. The other EAs in progress included: the proposed Casey's Pond Improvement Project at Fermilab; the proposed construction of the Human Genome Laboratory at Lawrence Berkeley National Laboratory (LBNL); construction of the Genome Sequencing Facility at LBNL; the proposed Induction Linac Systems Experiment at LBNL; a proposed Wildlife Damage Management plan project at Argonne National Laboratory; and the proposed modifications to the DIII-D Tokamak Fusion Device at General Atomics in San Diego.

1. Decisionmaking Initiatives Supported by EAs. The EAs completed during 1994 reflect a variety of decisionmaking initiatives supported by all four of the ER research programs: Basic Energy Sciences (ER-10); High Energy and Nuclear Physics (ER-20); Fusion Energy (ER-50); and Health and Environmental Research (ER-70). Four National Laboratory sites were involved. Examples of the proposals being evaluated for environmental impacts were: biomedical research, treatment and diagnostic facilities contained in congressionally-initiated construction grants at several state universities; modifications to an existing experimental physics facility at Brookhaven National Laboratory; termination of one fusion physics research facility along with initiation of a new fusion energy experiment at Princeton Plasma Physics Laboratory; the recycling of surplus copper metal at Lawrence Berkeley National Laboratory; and new research facilities at Pacific Northwest Laboratory.

Table 1. Energy Research Environmental Assessments (EA) and Findings of No Significant Impact (FONSI) Approved at DOE/HQ and the Operations Offices in 1994.

Issuing Organization	EA Project Title and DOE/EA Number	Date of FONSI Issuance
Environment, Safety and Health (EH)	Gazes Cardiac Research Institute at Medical University of South Carolina (DOE/EA 1863)	3/28/94
EH	Center for Nuclear Medicine Research in Alzheimer's Disease and Related Disorders at West Virginia University (DOE/EA 1918)	4/18/94
EH	Alternating Gradient Synchrotron (DOE/EA 2211)	6/27/94
EH	Cancer Institute of New Jersey, New Brunswick, New Jersey (DOE/EA 2220)	6/29/94
EH	Disposition of Copper Coil Windings from Cyclotron (DOE/EA 1993)	6/29/94
EH	Radiation Chemistry Accelerator Vault Addition (DOE/EA 1760)	6/30/94
EH	Center of Molecular Electronics, University of Missouri, St. Louis (DOE/EA 2264)	7/22/94
Richland Operations (RL)	Environmental & Molecular Sciences Laboratory (DOE/EA 2076)	7/7/94
Chicago Operations (CH)	Institute of Micromanufacturing, Louisiana Tech. University, Ruston, Louisiana (ER/DOE 2128)	8/15/94

Issuing Organization	EA Project Title and DOE/EA Number	Date of FONSI Issuance
RL	Moving Life Sciences II to Life Sciences (DOE/EA	10/19/94
CH	Cancer Center at Loma Linda University, California (DOE/EA 1865)	10/20/94
CH	Cancer Research Center at Indiana University (DOE/EA 1864)	10/27/94
CH	Center for Energy Resources Management, University of New Orleans Research and Technology Park, New Orleans, Louisiana (DOE/EA 2216)	11/07/94
CH	Diagnostic Instrumentation Analysis Laboratory, Mississippi State University, Starville, Mississippi (DOE/EA 2217)	12/22/94
CH	Tokamak Fusion Test Reactor Decontamination and Decommissioning And Tokamak Physics Experiment (DOE/EA 1702)	12/24/94

C. <u>Trend in the Use of EAs</u>. The use of EAs to support ER decisionmaking in 1994 continued the trend of the last 4-5 years and reflects the continuously improving awareness of the need for environmental analysis as a part of ER project planning and decisionmaking. During the period 1990-1994, 39 FONSIs were issued for ER project proposals based on 39 completed EAs as follows: in 1990, 1 EA was completed and 1 FONSI was issued; in 1991, 3 EAs/FONSIs; in 1992, 15 EAs/FONSIs; in 1993, 5 EAs/FONSIs; and in 1994, 15 EAs/FONSIs. ER has adopted one EA prepared by another federal agency (Department of Commerce) for the NEXRAD facility at Brookhaven National Laboratory (DOE/EA-0796, 1992). ER prepared one supplemental analysis to an EA on the Tokamak Fusion Test Reactor at Princeton Plasma Physics Laboratory (DOE/EA-0566, 1993). One mitigation action plan was prepared and approved for an ER EA on the Fermilab Main Injector Project (DOE/EA-0543, 1992). Proposed FONSIs (PFONSI) and Final FONSIs have been published in the Federal Register for construction of four new ER research facilities, one each during 1990, 1992, 1993, and 1994. Floodplain/wetland Notices of Involvement have been published in the Federal Register for three projects, with the Statements of Findings integrated into the FONSIs, as listed in Table 2.

Completion by ER of 39 FONSIs based on the successful completion of 39 EAs over the last 5 years has led to a "corporate EA experience" within ER and its field elements. This EA experience has enabled ER to begin the process of developing new categorical exclusion proposals for research activities based on several FONSIs issued on similar actions over time. This is discussed further in section VI.E below. This EA experience also has enabled the development of EA guidance (see section III. A below) and an EA Preparation Training Course (see section IV. C below).

Table 2. Federal Register Notices on Energy Research Projects for Which EAs Were Prepared During 1990 - 1994.

Project for Which EA was Prepared	PFONSI Publication	Final FONSI Publication	Notice of Involvement
Advanced Photon Source, ANL	55 FR 7365 03/01/1990	55 FR 20295 05/16/1990	54 FR 18326 04/28/1989
Main Injector Project, FNAL	57 FR 14707 04/22/1992	57 FR 31496 07/16/1992	56 FR 26806 06/11/1991
B-factory Collider, SLAC	58 FR 48874 09/20/1993	58 FR 68881 12/29/1993	- -
Gazes Cardiac Research Inst., South Carolina	- -	- 03/28/1994	59 FR 6627 02/11/1994
Tokamak Physics Experiment, PPPL	59 FR 50738 10/05/1994	59 FR 64396 12/14/1994	- -

D. Communications and Information Exchange. ER NEPA program communications during 1994 were implemented via several media and methods for information exchange, issues resolution, documentation of program activities and successes, and program visibility. Communications between the Operations Office NCOs and the ER/HQ NCO were frequent and value-added during 1994.

1. 1993 ER NEPA Program Summary. The 1993 Program Summary, NCO Communication 94-03, was issued on May 16, 1994. It was transmitted from ER to EH for use in reporting to the Secretary of Energy on progress in environmental protection, as per the directions in the Secretary's June 20, 1993, ES&H Policy. The document also was provided to the Operations Offices, and Area Offices, the National Laboratories, and to the ER Program Offices in an effort to communicate ER's position on providing quality decision making documents and to stress the importance of the NEPA process as a tool for making more informed environmental decisions. The 1993 Program Summary provided an analysis of the status of ER's continuous improvement in its NEPA services and products. It documented a 26% decrease in the median elapsed time for review and approval of ER's EAs. The use of ER's EAs as decisionmaking tools and in environmental stewardship also was documented in the Program Summary.

2. ER NCO Communications Series. The ER NCO Communications series was initiated in 1992 to facilitate and catalog the issuance of guidance, procedures, lessons-learned studies, and other NEPA-related documents of broad interest to ER and its field elements. Many of these issuances are the result of task groups and special studies commissioned by the participants at the ER Semiannual NEPA Workshops. This communications tool was continued in 1994 with issuance of the seven items listed in Table 3 below. A complete listing of these ER NCO Communications and other ER NEPA-related documents for 1992-1994 is contained on Attachment 1 to this Program Summary. The ER technical guidance issued during 1994 are discussed in Section III below.

Table 3. Energy Research NCO Communications Issued During 1994.

ER NCO Communication No. and Date of Issuance	Document Title
94-01 (August 18, 1994)	"Office of Energy Research Guidance on Early Timing and Implementation of the NEPA Process and Integration of the NEPA Process with the Project Management Process."
94-02 (March 10, 1994)	"Office of Energy Research Lessons Learned from Environmental Assessment Reviews."
94-03 (May 16, 1994)	"Office of Energy Research National Environmental Policy Act Program Summary for 1993 and Status Report on Continuous Improvement in NEPA Services and Products."
94-04 (August 1994)	"Office of Energy Research Quality Assurance Plan for Environmental Assessments: Preparation, Review, Approval, and Use as a Services in Decisionmaking."
94-05 (Sept. 27, 1995)	"Incorporating Pollution Prevention into the NEPA Process."
94-06 (June 1994)	Manual for the "Office of Energy Research Environmental Assessment Preparation Training Course"
94-07 (Sept. 19, 1994)	"Office of Energy Research NEPA Compliance Officer Quality Awards 1994."

3. Semiannual ER NEPA Workshops. In February and November 1994, the ER/HQ NCO sponsored NEPA Workshops that were held in conjunction with ER's Semiannual Environment, Safety and Health Coordination Meetings. Participants included representatives from the ER/HQ Program Offices, the Operations Offices, Site and Area Offices, National Laboratories, and support contractors. These workshops were the fifth and sixth in the series of Workshops that began in November 1991. The Coordination Meetings and the NEPA Workshops were held to provide a forum for information exchange, for discussing and resolving ER's NEPA issues, and to focus on ER's continuous efforts to improve its NEPA products and services. The meetings were used to identify NEPA programmatic needs of ER field elements and to identify potential mechanisms for the ER HQ NCO to address those needs and support the Operations Offices. Summary of the Coordination meetings and Workshops were prepared and distributed by ER/HQ to meeting participants in April and December 1994, respectively.

The February 1994 NEPA Workshop focused on actions under study by several task groups that resulted in the issuance of ER NCO Communication Numbers 94-01 on timing of the NEPA process, 94-02 on EA lessons-learned, and 94-05 on incorporating pollution prevention into the NEPA process. A new task group was formed to develop draft guidance on the applicability of "blanket" categorical exclusions for ER research activities. ER's success in informed decisionmaking and in environmental stewardship via use of the NEPA process was discussed at length.

The November 1994 NEPA Workshop focused on ER's implementation of delegated authority for approval of EAs and issuance of FONSIs, with discussion provided by several Operations Office NCOs. The task group work continued on blanket categorical exclusions for rulemaking based on ER's EA and FONSI experience over the last several years. The first ER NCO Quality Awards were presented at the Workshop.

4. ER's NEPA Compliance Page on World Wide Web. In October 1994, the ER Office of ES&H Technical Support (ER-8) became a part of the World Wide Web on the Internet. This opened the doors for global communication with all individuals having access to the Internet. There is

an ER-8.2 NEPA Compliance page on the World Wide Web that is located at:

"http://www.er.doe.gov/production/esh/nepacomp.html."

The NEPA page includes general information on ER's responsibilities and implementation of NEPA. It outlines the NEPA guidance and procedures developed by ER and is updated as needed.

5. ER/HQ NCO Visits to ER Sites and Facilities. Several site visit opportunities emerged during 1994 that enabled an improved understanding of several sites and their missions, as well as improved communications between the ER/HQ NCO and those who implement NEPA at the Operations Offices and those who assist with the implementation at the National Laboratories. Several site visits were coordinated with delivery of the EA Preparation Training Course. In many cases, it gave the ER/HQ NCO an opportunity to see first hand the actions described in NEPA documents, or actions in the discussion stages before the NEPA document preparation process was initiated. This allowed the NCO to offer better assistance and to provide better guidance to the Operations Office when requested. These site visits clarified environmental issues of concern to the ER/HQ NCO, and improved communications among the ER/HQ, Operations Offices, and National Laboratory NEPA staff. The visits were a vital element of ER's goal of improved communications as identified in the ER 1992 NEPA Program Summary (ER NCO Comm. 93-02). The site visits opportunities in 1994 included:

- Stanford Linear Accelerator Center - January 1994 (during the EH environmental management audit) and November 1994 (during delivery of the ER EA Preparation Training class).

- Savannah River Site, Savannah River Ecology Lab, and the National Environmental Research Park areas - February 1994 (during the EH NCO Meeting).

- Argonne National Laboratory, the Advanced Proton Source (APS) Project, and the APS wetlands mitigation project - June 1994 (during delivery of the ER EA Preparation Training class).

- Fermilab, the Main Injector Project and its wetlands mitigation project, the Illinois Tall Grass Prairie Restoration Project, and the National Environmental Research Park areas - June 1994 (during delivery of the ER EA Preparation Training class).

- Brookhaven National Laboratory - October 1994 (during delivery of the ER EA Preparation Training class) and December 1994 (during the ER Onsite Institutional Plan meeting).

- Lawrence Berkeley National Laboratory, the Advanced Light Source and other facilities - November 1994 (during delivery of the ER EA Preparation Training class).

6. Visibility of ER NEPA Program. During 1994, the ER NEPA program received visibility beyond ER by the publication throughout DOE of the results of the program's activities in a variety of print media. ER will continue to enable, support, and make public ER's NEPA program results and successes. Examples published during 1994 are briefly described below.

(a) "*DOE This Month*", December 1994: a summary report on the November 1994 ER Semiannual ES&H Coordination Meeting and the ER NCO Quality Awards.

(b) "*Pollution Prevention Advisor*", December 1994: an article entitled "Energy Research Tells How to Incorporate P2 into NEPA" that summarized ER NCO Communication No. 94-05 on incorporating pollution prevention concepts into the NEPA process.

(c) "*LBL Currents*", December 9, 1994: an article entitled "DOE Applauds Quality Work" that summarized a Lawrence Berkeley Laboratory (LBL) planning project and the staff member who received an ER NCO Quality Award for the project.

(d) "*ER News*", February 1995: an article entitled "Save Our Copper" that summarized Office of Basic Energy Sciences and

LBL project that successfully recycled 140 metric tons of excess copper rather than to declare it waste for disposal.

7. Participation in EH-Sponsored NEPA Activities. The ER/HQ NCO and ER support service contractors participated in two regular NCO Meetings sponsored by EH in February and October 1994, and in a special NCO Meeting on the Secretary's NEPA Policy during June 1994. At the February NCO Meeting, the ER/HQ NCO made a presentation entitled "Defining NEPA's Products and Services" that discussed the need to better recognize the NEPA process and its documents as services to decisionmakers and the public, while orienting the process toward the outcomes of quality decisionmaking and environmental stewardship. In November 1994, the ER/HQ NCO met with EH to assist with EH's development of a new DOE NEPA Quality Awards Program. The ER NCO Quality Awards Program was shared with EH as a recent program office experience.

III. CONTINUOUS IMPROVEMENT IN ER'S NEPA SERVICES AND PRODUCTS

The intent of the NEPA process is to provide timely information on the environmental aspects of a proposed action to federal decisionmakers, thus enabling decisions based on an understanding of the environmental consequences. The process is also designed to disclose information and the results of the federal decision process to the public. The Council on Environmental Quality regulations state in §1500.1(c) that, "ultimately it is better decisions that count and not excellent paperwork."

NEPA documents provide a "service" in that they assist decisionmakers in making informed project and program decisions that include environmental values and consequences, along with other technical, financial, administrative, and planning considerations. NEPA's "products" (i.e., the desired results of the process) are quality environmental decisionmaking and attainment of the Act's environmental goals (preventing and eliminating environmental damage, attaining beneficial uses of the environment without degradation, reduction of risks to the environment, etc.), along with public disclosure of agency decisions and actions. It is these outcomes and results from NEPA's services that need to be the focus of a performance-based NEPA program. Continuous improvement in the ER NEPA products of decisionmaking and environmental protection are discussed in section V

below.

A. ER NEPA Guidance. To ensure continuous improvement in ER's NEPA Program, the ER/HQ NCO coordinated the development and issuance of several pieces of new guidance to the ER Program Offices, Operations Offices, and National Laboratories throughout the ER complex.

1. NEPA Timing Guidance (NCO Comm. 94-01). In 1993, Energy Research conducted a Training Needs Survey (NCO Comm. 93-10) which determined that there was a need for guidance on timing of the NEPA process. Because timing of NEPA documentation has been a continuous problem within ER, draft guidance was developed in 1993 and coordinated with the field for their review and comment. In August 1994, ER's "Guidance on Early Timing and Implementation of the NEPA Process and Integration of the NEPA Process with the Project Management Process," was finalized and distributed to the field.

2. EA Lessons-Learned (NCO Comm. 94-02). In March 1994, ER issued the "Lessons-Learned from Environmental Assessment Reviews." This guidance was a follow-up to the ER "Guidance on the Preparation, Scope, and Content of Environmental Assessments," issued in November 1992. The March 1994 guidance examined the comments and concerns cited by the DOE Office of Environment, Safety and Health (EH) and the Office of General Council (GC) on the draft and final versions of twelve EAs approved since the 1992 guidance was issued. The guidance made suggestions for addressing EH and GC comments in future documents. As a result of the guidance, improvements to ER EAs were noticed and the HQ review and approval elapsed time was reduced.

3. Incorporating Pollution Prevention into the NEPA Process (NCO Comm. 94-05). In September 1994, ER issued "Incorporating Pollution Prevention Into the National Environmental Policy Act Process." This communication was issued as a follow-up to the February 1994 EH-1 memorandum concerning incorporation of pollution prevention be considered during the NEPA process.

The guidance represents a variety of approaches that can be used to incorporate pollution prevention concepts into the conduct of the NEPA

process. The guidance was developed using a Total Quality Management teamwork approach and was based upon work conducted by Susan Michaud of Oak Ridge National Laboratory and Sheryl Buck of Sandia National Laboratory. It was coordinated within the ER Pollution Prevention Program managed by Arnold Edelman of ER/HQ. The guidance was completed by a work group of ER/HQ, Operations Office, and National Laboratory personnel.

B. ER/HQ NCO Quality Awards Program. 1994 marked the initiation of the ER NCO Quality Awards Program. The ER NEPA Quality Program, in its third of operation, has seen measurable improvement in services and products and is able to provide formal recognition of successes. The NCO Quality Awards are broad-ranging and based upon achieving the goals of the National Environmental Policy Act and the goals of the Council on Environmental Quality regulations that implement the Act's procedural provisions. The awards are based upon the ER NCO's analysis of quality performance. The initial awards recipients were approved and the award plaques signed by James K. Farley prior to his retirement. The 1994 awards were given in recognition of NEPA planning, production of quality NEPA documents, environmental stewardship, NEPA process improvement, and NEPA document management. The awards were presented at the NEPA Workshop held during the November 1994 ER ES&H Coordination Meeting. Dr. David Nelson, ER/HQ Associate Director, presented the awards. Attachment 2 to this Program Summary provides the details of the awards and their recipients.

IV. DELEGATION OF EA AND FONSI APPROVAL AUTHORITY

On June 13, 1994, The Secretary of Energy issued the "Policy Statement on the National Environmental Act." This policy delegated to the Heads of Field Organizations full authority for EAs, FONSIs, and associated floodplain and wetland action documentation requirements relating to their proposed actions. In addition to these delegated authorities, the Policy Statement emphasized the need for innovations and new measures to streamline the NEPA process and to reduce the costs of its implementation. Based on this policy issuance, the ER/HQ NEPA Program was modified to provide the support required to implement the Secretary's directive. The ER/HQ NCO redirected some program emphasis and

resources from document review to the development of guidance and tools to support the field in carrying out their new responsibilities.

The redirected activities conducted by the ER/HQ NCO included assisting the Operations Offices with preparation of the required EA Quality Assurance Plans, and the companion plans for internal scoping and public involvement. An EA Preparation Training Course also was developed to assist the field with preparation of ER NEPA documents that meet the DOE expectations of quality and adequacy. The overall goal was to assist the Operations Offices with continued implementation of a quality program to ensure success of the delegation of authority.

The ER/HQ EA Quality Assurance Plan was developed in conjunction with the ER/HQ Program Offices and finalized in August 1994 as ER NCO Communication 94-04.

A. Delegated Authority Approvals. The Secretarial NEPA Policy stated that delegated authority would be granted by EH upon receipt of a valid request from the Secretarial Officers and Heads of Field Organizations. ER and the Operations Offices that administer ER-sponsored research filed requests during 1994, with delegation granted as indicated below.

Oakland Operations - July 22, 1994
Chicago Operations - August 11, 1994
Richland Operations - August 19, 1994
Energy Research HQ - September 21, 1994
Oak Ridge Operations - October 21, 1994

B. Implementation of Delegated Authority. Several of the Operations Offices that conduct ER sponsored activities successfully implemented their delegated authority in support of ER projects at their laboratories and facilities during 1994. On August 16, 1994, the Manager of Chicago Operations approved a FONSI on the DOE construction grant for the Institute of Micromanufacturing at Louisiana Technical University (Table 1). Chicago also took the lead on issuing, in the Federal Register under the Manager's signature, a Proposed FONSI for a 30-day public comment period on the proposed Tokamak Physics Experiment at Princeton Plasma Physics Laboratory. Following public review, the Manager determined that

a final FONSI should be issued (Table 2).

Oakland Operations coordinated the review by the State of California on the EA for the Human Genome Laboratory at Lawrence Berkeley National Laboratory. This EA was still in progress at the end of 1994. Oakland will make the final determination to issue a FONSI or to prepare an EIS.

On April 25, 1994, (prior to the new DOE delegation of authority program) the Manager of Richland Operations Office determined that an EA should be prepared for construction and operation of the proposed Environmental and Molecular Sciences Laboratory (EMSL) at Pacific Northwest Laboratory. To support the accelerated schedule for preparation of the EA, Richland requested assistance from ER-1 is requesting delegation of authority from EH-1 for approval of the final NEPA determination based on the EA for the EMSL. On May 5, 1994, ER formally requested that Richland be delegated the authority for the EMSL determination. The authority was granted by EH on May 16, 1994. The EA was prepared and the Manager of Richland Operations signed a FONSI on July 7, 1994, for the EMSL (Table 1). Richland Operations also reviewed another EA for a project on the relocation of radon generators from one Life Sciences Laboratory to another at Pacific Northwest Laboratory (Table 1). The EA was issued for the state/tribal review process, was reviewed for the threshold determination on whether to Issue a FONSI or prepare an EIS, and a FONSI was issued in October 1994 (Table 1) under the new delegation of authority program.

ER-8 and the ER/HQ NEPA Compliance Officer continued to provide support to the Operations Offices during 1994 in the form of EA quality assurance reviews, reviews of draft FONSIs, coordination with ER and DOE HQ offices, and with training on the preparation of EAs.

C. <u>EA Preparation Training Course</u>. During 1992, the ER/HQ NCO conducted a NEPA training needs survey of the ER Operations Offices, Area and Site Offices, and the research laboratories. The survey identified the ability to produce quality EAs as an area of weakness, and one in which the ER/HQ NCO could assist the Operations Offices by providing training. ER then designed an EA lessons learned initiative that led to the development of a guidance document on the preparation of quality ER EAs

(ER NCO Communication 94-02). This lessons learned approach then led to the development of an EA Preparation Training Course to support the Operations Offices with delegated authority. Comments on ER's EA made by the Office of General Counsel (GC), the Office of Environment, Safety and Health (EH), and the host states were reviewed, consolidated, and utilized in designing the course to address the problem of quality EA preparation. In addition to the lessons learned approach, the training course also incorporates existing guidance developed by EH on the scope and content of EAs. The training course includes a module on the local Operations Office NEPA procedures and expectations that is taught by the Operations Office NCOs. Each participant in the course received a training manual of information and resources, as well as a certificate of training from ER/HQ. Each participant also was asked to critique the training by completing a survey that was used to refine and improve the course.

During 1994, the course was delivered twice for the Chicago Operations Office (at Argonne National Laboratory in June 1994 and at Brookhaven National Laboratory in September 1994), with NCO Bill White providing instruction on the Chicago NEPA procedures and expectations. The course also was delivered once for Oakland Operations Office (November 1994), with NCO Tony Adduci providing instruction on the Oakland NEPA procedures and expectations. The Chicago Operations Office observed that the training sessions resulted in an increase in the overall quality of the EAs prepared.

D. <u>NEPA Workshop on Delegated Authority</u>. The November 1994 Semiannual NEPA Workshop focused on the experiences-to-date with delegated authority. A forum was provided for the sharing of experiences and ideas among Operations Offices and ER/HQ. At that time, delegation was fairly new and several Operations Offices reported that they were resource limited in fully implementing the authority and responsibility. It was stated by some Operations Office representatives that more training was needed at all levels, especially for NEPA Document Managers and document writers and reviewers. The role of ER/HQ in delegated authority was discussed in terms of assistance with document reviews, internal scoping meetings, communications, workshops, and training. After delegation was in place in 1994, the ER/HQ NCO participated in several internal scoping meetings with the Operations Offices and National

Laboratories, and continued to provide quality assurance reviews of draft NEPA documents as a form of resource support to the Operations Office NCOs. This also was an efficient way of keeping the ER/HQ informed regarding the implementation of NEPA for ER-sponsored research activities and projects at the Operations Offices.

V. CONTINUOUS IMPROVEMENT IN DECISIONMAKING AND IN ENVIRONMENTAL PROTECTION: NEPA's PRODUCTS

Focus. One of the products of the NEPA process is quality informed decisionmaking. Quality decisions occur from emphasizing results and excellent action rather than emphasizing better documents and excellent paperwork. ER has been attempting to more effectively achieve outcomes and quality decisions via the NEPA process.

In addition to quality decisionmaking, another product of the NEPA process is achieving the environmental stewardship goals of the National Environmental Policy Act. The Council on Environmental Quality regulations charge federal agencies to take "actions that protect, restore, and enhance the environment" [40 CFR 1500.1(c)]. In 1994, ER completed the NEPA process for several EAs in support of project decisionmaking that would protect the environment. These projects involved recycling, waste minimization and reduction, and dose reduction to workers and the public. Additionally, two of ER's National Laboratories continued to monitor the status and success of two wetlands mitigation projects that began with rigorous analyses via EAs several years ago.

A. Continuous Improvement in the ER NEPA Process and Decisionmaking: New Categorical Exclusion Proposals Based on EA Experience.

During the period 1992-1994, ER prepared 14 EAs on congressionally-initiated construction grant projects, nine of which were completed during 1994. Many of the actions assessed in the EAs were very minor in nature and consisted of activities such as consolidation of existing laboratory functions, the construction of wings or floors of buildings, the performance of routine biomedical/treatment programs, and the installation into hospitals of medical equipment such as PET scanners. It often appeared obvious from the outset of those projects that they would have no public controversy, they would not be major federal actions

significantly affecting the quality of the human environment, and thus there would be no need for preparation of environmental impact statements. Each of the 14 EAs for those projects resulted in FONSI determinations, without mitigation. It was not always clear, therefore, that the EA process was value-added and that it actually supported or influenced decisionmaking for those actions. For these reasons, ER examined the feasibility of developing some new categorical exclusions based on the many EAs and FONSIs prepared. A task group was formed that began the analysis of the body of ER EAs prepared during 1990-1994 for their applicability to new categorical exclusion development.

B. Examples of NEPA Decisionmaking. Examples of the NEPA process supporting and influencing quality decisionmaking and environmental protection in ER proposals during 1994 are discussed below.

1. Decision to Release Slightly Activated Surplus Copper at Lawrence Berkeley National Laboratory (LBNL) for Unrestricted Use. ER and LBNL stated their preference not to classify as waste material 140 metric tons of slightly activated high purity copper left over from the decontamination and decommissioning of an old cyclotron at LBNL. A recycling project thus was developed out of a preference to recycle potentially useful material, to save money, and to adhere to the DOE policy on waste minimization and pollution prevention. The NEPA process was initiated and an EA was prepared (DOE/EA-0851) to examine the environmental consequences of the reasonable alternatives, and thus support a proposed decision on recycling. The desired outcome to recycle would support NEPA's goals for protecting the environment, reducing risk, and eliminating potential damage. The EA was approved and a FONSI issued in June 1994 (Table 1).

The DOE procedures for the unrestricted release of volume activated material in DOE Order 5400.5 require the approval of the Assistant Secretary for Environment, Safety and Health (EH-1). On July 6, 1994, ER submitted a formal request to EH-1 for approval to release the copper material for unrestricted use and recycling. The request contained an "As Low As Reasonably Achievable (ALARA)" analysis, plus the EA and FONSI, in support of the conclusions that the unrestricted release of the copper would have no environmental or public health consequences. On

August 2, 1994, EH-1 formally approved the request for release. The copper material subsequently was sold to a scrap metal dealer in California. The data and analyses in the EA were used to prepare the ALARA documentation. Both documents substantially influenced and supported the decisionmaking by ER and LBNL, and ultimately the decision and approval to release the material made by EH.

2. Long Range Planning and Improved Accelerator Efficiency Results in Reduced Waste Generation and Lowered doses. In 1994, ER completed an EA (DOE/EA-0909) on a proposal to improve and upgrade the operating efficiency of the Alternating Gradient Synchrotron (AGS) Complex at Brookhaven National Laboratory (BNL). The EA evaluated all of the reasonably foreseeable actions that are planned to be taken to complete the High Energy Physics research program at the AGS during the period 1993-1999, as considered in the BNL Institutional Plan. The EA also evaluated upgrades needed to support AGS Nuclear Physics research operations for the next 30 years. The EA, therefore, supported comprehensive facility and research program planning and decisionmaking.

The proposed action in the EA would replace current AGS components with state-of-the-art equipment and result in a decrease of up to 25% in the generation of low level radioactive waste. The proposal also would result in greater control of the synchrotron's beam intensity such that beam losses would be reduced from 25% to 3%, producing an expected decrease in the collective annual onsite worker dose by up to 60%. The desired outcome of the proposals assessed in the EA would be greater project efficiency and cost savings, along with waste reduction and the minimization of worker risks. All of these outcomes are consistent with the goals of both the Department and the National Environmental Policy Act.

3. Wetlands Mitigation Projects on Target. ER currently has two wetlands mitigation projects underway, for which annual monitoring and mitigation reports were issued for 1994. One project, the Advanced Photon Source (APS), is located at Argonne National Laboratory (ANL). The other, the Fermi Main Injector Project, is located at Fermi National Accelerator Laboratory (Fermilab). Both projects followed the procedures for floodplains/wetlands assessment and published notices of involvement in

the Federal Register (Table 2). Both projects were evaluated for environmental impact via EAs that included Proposed FONSIs and final FONSIs published in the Federal Register. The floodplains/wetlands statements of findings were incorporated into the FONSIs for decisionmaking on both projects.

The APS project at ANL was assessed in DOE/EA-0389 (February 1990) for which a FONSI was issued on May 19, 1990 (Table 2). Construction of the APS required the taking of 1.1 acres of wetlands that were mitigated by replacement of 1.8 acres. Protection (i.e., fencing and isolation from construction activities) of another nearby wetland also was necessary. Construction of the 1,8 acre replacement wetland was completed in the fall of 1991. Under agreement with the U.S. Army Corps of Engineers, monitoring of the wetlands will be conducted for five years. Three annual monitoring reports have been prepared to date by ANL, for the years 1992, 1993, and 1994. The ER/HQ NCO has visited the site and seen the wetlands during each of the monitoring years thus far, as a followup to the EA. Thus far, the wetlands replacement project appears to be developing positively and progressing satisfactorily. Also, the protected wetland does not appear to have been affected by construction activities. Mr. Russel Heubner and Dr. Gerrit Van Dyke, of the APS project team that is managing and monitoring the wetlands, participated in the November 1994 ER NEPA Workshop. They presented an historical overview and status report of the wetlands mitigation effort. Thus far it appears to be a successful endeavor that began with a rigorous analysis via an EA.

The Main Injector Project at Fermilab was assessed in DOE/EA-0543 (March 1992) for which a FONSI was issued on July 16, 1992 (Table 2). A Mitigation Action Plan (MAP) also was required and was approved along with the EA prior to issuance of the FONSI. Construction of the Main Injector required the taking of about 6 acres of wetlands that were mitigated by replacement actions during the fall of 1992 and the spring of 1993. All together, the total mitigation project consists of about 10 acres, with 7 acres of forested wetland and 3 acres of sedge meadow wetland. Under agreement with the Army Corps, monitoring of the wetlands will be conducted for five years. Two annual reports have been prepared to date by Fermilab, for the years 1993 and 1994. Reporting against the MAP is summarized in the Fermilab Annual Site Environmental Report (ASER), with the monitoring details included in the reports to the Army Corps, which

are appended to the ASER. The ER/HQ NCO has visited the site and seen the wetlands during each of the monitoring years thus far, as a followup to the EA and the MAP. Thus far the replacement wetlands are becoming well-established and the project appears to be progressing satisfactorily. Dr. Rod Walton, of the Fermilab project team that is managing and monitoring the wetlands, participated in the November 1994 ER NEPA Workshop. He presented an historical overview and status report of the wetlands mitigation effort. Thus far it appears to be a successful endeavor that began with a rigorous analysis via an EA.

VI. SUMMARY OBSERVATIONS AND FUTURE CONSIDERATIONS

1994 marked the third full year of the ER NEPA Quality Program that began with a proactive initiative during latter 1991 and early 1992. Some of the indicators and measures of success, some concerns, and future considerations are summarized and discussed below.

A. Quality and Customer Focus. The Program Summaries for 1992, 1993, and this current one for 1994 provide evidence of an increasingly "quality" and customer focused program resulting in ER NEPA process improvements, process elapsed time reductions, use of the EA process for decisionmaking, achievement of the CEQ regulations' objectives for making better decisions, and achievement of NEPA's environment stewardship goals. The improving success in achieving the outcomes and goals of NEPA and its implementing regulations has permitted ER to provide formal recognition to its employees via the ER NCO Quality Awards Program. The awards program has been well received and well publicized throughout the Department.

The ER/HQ NCO will continue to coordinate the development procedures and other issuances that will assist ER and its field elements with implementation of and achievement of NEPA's goals and objectives. This will be done on an as needed basis using the ER NEPA Workshops as the primary venue for performing this service. The ER/HQ NCO will continue to provide recognition for successes and achievements in ER's attaining the goals and objectives of the National Environmental Policy Act and its implementing regulations. This recognition will be provided to eligible staff and organizations within ER/HQ, the Operations Offices, Area and Site

Offices, the National Laboratories, and ER's support contractors. The venue of the ER Semiannual ES&H Coordination Meeting will continue to be used for the formal presentations as a means of providing visibility and for focusing attention on the successes achieved in the ER NEPA program. Documentation of the awards will continue to consist of plaques for the recipients, letters to the recipients and their supervisors prior to presentation, and a written summary of the basis for the awards and their recipients.

B. Improved Teamwork. Teamwork has continuously improved among ER/HQ, Operations Offices, and National Laboratory personnel for the common good of implementing the process, improving and streamlining the process, decisionmaking, and environmental stewardship concerns. The teamwork approach has resulted in the development of guidance, training, communications, and new categorical exclusion procedures and proposals.

C. Vigor in Communications. Communications have been active and successful with respect to lessons learned, guidance development, customer focus, workshops, and support for delegation of EA authority. Several media and venues have been utilized to enhance communications among ER/HQ and the field elements. The ER/HQ NCO will continue to implement and facilitate communications that assist ER and its field elements in implementing NEPA's procedural provisions, and that assist with continuous improvement in the process and in the outcomes and results of the process. The ER NCO Communications series will be continued on an as needed basis to document and archive ER's NEPA procedures and outcomes. The annual NEPA Program Summary will be continued as a means to provide information, express concerns, identify successes, and monitor the outcomes of ER's NEPA program. The ER NEPA Workshops will continue to be held in conjunction with the ER Semiannual ES&H Coordination Meetings, as long as the Workshops continue to provide a value-added service to ER and its field elements. It may be possible to hold some ER-sponsored NEPA Workshops in the field, with assistance of the Operations Office NCOs. The ER/HQ NCO will continue to visit the Operations Offices and National Laboratory sites, whenever opportunities become available, and when requested to do so by the field elements.

D. <u>Implementing Delegated EA Authority</u>. Implementation of delegated EA authority by the Operations Offices appears to be vigorous and successful thus far. ER/HQ and the Operations Offices collaborated on the preparation of planning documents in support of delegation, and in the design and delivery of an EA Preparation Training Course to assist with successful document preparation and approval in the field. With delegated authority to the field, communications between the Operations Offices and ER/HQ will need special attention in order to keep all informed of NEPA activities and the lessons learned from the process. ER/HQ will continue to provide communications and coordination support to the field, as needed, to ensure the success of delegated authority. Plans were being made in late 1994 to conduct the EA training course at Richland Operations Office during early 1995. The ER/HQ NCO will continue to provide the training course for ER's Operations Offices on an as needed basis.

E. <u>Corporate ER EA Experience</u>. Completion by ER of 39 FONSIs based on the successful completion of 39 EAs over the last 5 years has led to a "corporate EA experience" within ER and its field elements. This experience includes the related processes of publishing Federal Register notices, the use of Proposed FONSIs, adoption of other agency EAs, supplementing EAs, mitigation action plans, and floodplain/wetland assessments. A few of the proposed projects evaluated by ER EAs were similar in complexity and cost to projects that normally require the preparation of EISs under the DOE NEPA regulations (10 CFR 1021). Proposed PFONSIs were made available for public review on those projects, resulting in the issuance of Final FONSIs. This EA experience has enabled ER to begin the process of proposing new categorical exclusions for research activities based on several FONSIs issued on similar actions over time. The EA Preparation Training Course also is an outgrowth of this ER corporate EA experience.

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